

METHOD AND SYSTEM FOR COMMUNICATIONS CHANNEL DELAY ASYMMETRY COMPENSATION USING GLOBAL POSITIONING SYSTEMS

Abstract

A method for compensating for communications channel delay asymmetry in a current differential protection system includes determining an apparent sampling clock offset for a communications channel, the apparent sampling clock offset between a first sampling clock and a second sampling clock configured within the current differential protection system. An apparent global positioning system (GPS) clock offset is determined for the communications channel, the apparent GPS clock offset between a plurality of GPS time stamps corresponding to the first and said second sampling clocks. A compensated clock offset is determined by subtracting the apparent GPS clock offset from the apparent sampling clock offset so as to cancel out a channel asymmetry component of deviation in the apparent GPS and sampling clock offsets.